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## Editorial

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# Educating and training the public health workforce

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We do not know the number of institutions where public health and its closely related topics are taught and trained. According to current estimates,<sup>1</sup> there are about 400 schools of public health worldwide, plus an unknown number of units or departments specifically devoted to hygiene, epidemiology, social medicine, etc.

This number is rising and, interestingly, a large part of the increase is taking place in low- and middle-income countries. Hopefully, this reflects the improved visibility of public health, and the credentialing of its workforce, now considered the central player in the governance of health systems.

The context of this growing power is well known. The worldwide ageing of the population and the correlated epidemiological transition towards chronic and degenerative diseases, mean new patterns of population health. Examples include a worldwide predominance of chronic pathologies, the double burden of diseases (i.e. co-existence of 'classical' infectious diseases with heavy non-communicable conditions like cardiovascular disease and cancer), emergent pathological conditions, disorganized health care systems and confused funding schemes of care.

This crisis situation warrants a modern, competent public health, i.e. services to be delivered by a creative workforce and building upon solid knowledge. Creativity is required because there is no previous experience of such a massive transition. Sound science is an *a priori* guarantee for the effectiveness of interventions.

It is unclear if the existing education and training programmes have the capacity to deliver professionals with the necessary knowledge and skills to meet the needs mentioned above. Various procedures of assessment and accreditation are already available, and there is more to come in Europe with a joint initiative from the European Public Health Association (EUPHA) and the Association of the Schools of Public Health in Europe (ASPHER). However, most evaluation procedures are focused on measurements strictly related to formal educational processes (e.g. number of credits, structure of the course, satisfaction of students, qualification of teachers, etc.). On the other hand, there is little evaluation on the relevance of public health education in the real world.

For example, a typical question is whether or not training in evidence-based public health adequately prepares practitioners able

and willing to implement evidence-based interventions upon graduation. We know from clinical medicine that translating available knowledge into daily practice is far from trivial: the response was, and still is, a mix of continuous education and guidelines provided to the medical practitioners.

Just like clinical medicine, public health is a primarily practice oriented and thus faces similar problems, e.g. how to identify novel paradigms, and how can these new ideas be rapidly transferred to the practice. One response is to ensure that all teachers have a qualified background in research, with continuing activity and production in research. This is probably the easiest way to anchor public health education in scientific thinking and to promote a creative practice among all students.

Another approach is to develop and maintain the link between research and practice in public health by promoting the movement of professionals between academic schools and practice-oriented institutions. Research sabbaticals, joint positions, common seminars, etc., can assist in strengthening cooperation. These types of initiatives promote a virtuous circle of close collaborations, including the elaboration of research projects directly inspired from problems faced by public health practitioners. Conversely, new concepts or tools elaborated in research laboratories could be more rapidly and more rigorously tested in the real life.

These problems, and many others related to the definition of core competencies in public health, are not easy to cope with. They have to be solved if public health educators and trainers want to positively contribute to the future of public health practice in the coming decades.

## Reference

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